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An opinionaire designed to assess student attitudes toward humanities, natural science, and social science was administered in a beginning-level humanities section during the first week of the second semester. The purpose of the study was to determine if a relationship existed between the number of hours of television instruction a student has completed and his attitudes toward the three above-mentioned departments in the college.

There was no straightforward relationship between television hours and attitudes toward courses. However, it is possible that a special course combination in interaction with the number of hours of completed television instruction results in differential attitudes toward courses. Further study is needed to confirm the existence of a relationship between the number of hours of television instruction the student has completed and his attitudes toward humanities, natural science, and social science.

Numerous tables are included.

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THE RELATIONSHIP BETWEEN THE NUMBER OF HOURS OF TELEVISION INSTRUCTION AND STUDENT ATTITUDES TOWARD HUMANITIES, NATURAL SCIENCE, AND SOCIAL SCIENCE IN UNIVERSITY COLLEGE

Linda Marlin Blane

January 1965

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The Relationship Between the Number of Hours of Television Instruction and Student Attitudes Toward Humanities, Natural Science, and Social Science in University College

Introduction and Statement of the Problem

Student attitudes are a useful aid in evaluating an educational program. These same attitudes as related to the number of hours of television a student has completed are particularly good criteria in evaluating the television curriculum.

Student attitudes toward a particular course (humanities, natural science, or social science) were evaluated. The number of hours of television instruction completed by the participating students in humanities, natural science, and social science varied from two to eight hours. Therefore, comparisons of student attitudes and the number of hours of television were possible for each of these three University College departments.

Method of Procedure

The opinionaire developed by Woodward[1] was administered in the Humanities 102 seminars during the first week of the second semester 1963-64.

Answers were recorded by the students on mark-sense IBM cards. Seven groups were formed as is shown in Table I.

In evaluating attitudes toward humanities, groups 1, 2, 3, and 7 were used. To determine attitudes toward natural science, groups 4, 2, 5, and 7 above were utilized. Finally, groups 6, 3, 5, and 7 were used to evaluate social science attitudes.

---

[1]John C. Woodward, "Student Attitudes Toward Humanities, Natural Science, and Social Science in University College," Report No. 1, Office for the Study of Instruction, University of Miami, July 1964.

Table I

Groups by Courses Completed, Number of Hours, and Size of Group.

Group	102 Students Who Had Completed Only:	Number of Hours	Size of Group
1	Hum 101	2	36
2	Hum 101 & NSC 101	5	11
3	Hum 101 & SSC 101	5	79
4	NSC 101	3	67
5	NSC 101 & SSC 101	6	35
6	SSC 101	3	77
7	Hum 101, NSC 101, SSC 101	8	205

Analysis and Results

General population characteristics may be found in Report No. 1.[2]

Opinionaire Results - Humanities

The students were given the following directions for responding to the opinionaire:

DIRECTIONS: Student opinion or attitude is a very important part of the evaluation of the educational program in University College. This opinionaire is anonymous in order that you may

[2] Ibid., pp. 1-3.

be frank and honest with your responses. After a few preliminary questions you will find a series of generalizations, principles or ideas about the courses in which you were enrolled last semester. You may or may not agree with them; or you may support some more strongly than others. Mark your rating for each item which seems to be the one representing most closely your point of view or belief with respect to it. In making your rating use the following marks:

If you <u>strongly agree</u> with the statement mark---------- A

If you <u>simply agree</u> with the statement mark---------- B

If you are <u>uncertain</u>; have no opinion either way mark---- C

If you <u>disagree</u> with the statement mark---------- D

If you <u>strongly disagree</u> with the statement mark--------- E

Table II is a summary of the student attitude concerning the organization of the humanities courses.

Table II

Analysis of the Statement: The humanities course is exceptionally well organized; subject matter in agreement with clearly defined course objectives.

101 Courses Completed	Number of TV Hours	% Agree	% No Opinion	% Disagree
Humanities	2	61	14	25
Hum + NSC	5	63	0	36
Hum + SSC	5	65	11	24
Hum+NSC+SSC	8	62	15	23

The arc sin transformation and the proportional z tests were used to test the significance of the responses. These techniques were utilized to assess response differences between (1) course groups having had a differential number of TV hours of instruction, and for (2) course groups which may have had an equal number of hours of instructional TV.

The analysis of the findings reported in Table II discloses no significant differences among course groups.

Students' attitudes toward departmental exams are given in Table III.

Table III

Analysis of Statement: The humanities departmental examinations are fair tests of the course material.

101 Courses Completed	Number of TV Hours	% Agree	% No Opinion	% Disagree
Humanities	2	72	3	25
Hum + NSC	5	65	17	18
Hum + SSC	5	63	18	19
Hum+NSC+SSC	8	68	6	25

Statistical analysis of Table III reveals:

(1) In the "no opinion" dimension, the Humanities group (H) significantly differs from the Humanities and Social Science group (H+S). The direction is in favor of H+S which has a greater number of non-committal responses concerning the fairness of departmental exams.

(2) The H+S group again has significantly more "no opinion" answers than the Humanities, Natural Science, and Social Science group (H+N+S).

(3) No significant differences exist for responses of "agree" or "disagree".

The feelings of students about grades are reported in Table IV.

Table IV

Analysis of Statement: The grades in humanities are based on very limited evidence of achievement.

101 Courses Completed	Number of TV Hours	% Agree	% No Opinion	% Disagree
Humanities	2	17	25	58
Hum + NSC	5	18	9	73
Hum + SSC	5	33	16	51
Hum+NSC+SSC	8	33	16	51

The H+N+S group has significantly more "agree" responses than H+N. The groups are statistically equal over the other two responses.

Student attitudes concerning cheating are depicted in Table V.

Table V

Analysis of Statement: A large percentage (over 10%) of the humanities students cheat in some way on examinations.

101 Courses Completed	Number of TV Hours	% Agree	% No Opinion	% Disagree
Humanities	2	39	31	31
Hum + NSC	5	63	9	27
Hum + SSC	5	34	41	25
Hum+NSC+SSC	8	28	39	34

An analysis of the results shows:

(1) Re. "Agree": Significantly more students in the Humanities and Natural Science group (H+N) feel students are cheating in their classes than do students in H+N+S.

(2) Re. "No Opinion": Students taking H+N+S are significantly more undecided about cheating than students in H+N.

Table VI is a report of students' feelings about the importance of humanities as an area of study.

Table VI

Analysis of Statement: Humanities is an important area of study for anyone going to college.

101 Courses Completed	Number of TV Hours	% Agree	% No Opinion	% Disagree
Humanities	2	75	11	14
Hum + NSC	5	72	0	27
Hum + SSC	5	74	9	17
Hum+NSC+SSC	8	77	8	14

The analysis reveals no significant differences among groups.

The information in Table VII concerns the relationship between humanities assignments and course objectives.

All groups in Table VII are statistically equal over responses of "agree", "no opinion," and "disagree."

Table VII

Analysis of Statement: The humanities assignments are not related well to the course objectives.

101 Courses Completed	Number of TV Hours	% Agree	% No Opinion	% Disagree
Humanities	2	8	17	75
Hum + NSC	5	27	18	54
Hum + SSC	5	19	18	63
Hum+NSC+SSC	8	17	17	67

Table VIII reflects student opinions concerning opportunity for personal attention in humanities.

Table VIII

Analysis of Statement: There is a detrimental lack of opportunity for personal attention in the humanities program.

101 Courses Completed	Number of TV Hours	% Agree	% No Opinion	% Disagree
Humanities	2	31	17	53
Hum + NSC	5	45	0	54
Hum + SSC	5	43	15	42
Hum+NSC+SSC	8	39	11	49

No differences in attitudes are evident between the groups for each response.

The organization of humanities lectures as viewed by students is reported in Table IX.

Table IX

Analysis of Statement: The humanities lectures are well organized in terms of course objectives, use of pertinent audio-visual materials, etc.

101 Courses Completed	Number of TV Hours	% Agree	% No Opinion	% Disagree
Humanities	2	69	17	14
Hum + NSC	5	44	15	42
Hum + SSC	5	67	13	21
Hum+NSC+SSC	8	39	11	49

Equality of mean responses is found among the groups for each of the three responses.

Attitudes toward item 16 in the opinionaire are summarized in Table X.

Table X

Analysis of Statement: I feel that it is much better to have TV lectures by the best possible humanities professors than to have regular classroom lectures by the more average professors.

101 Courses Completed	Number of TV Hours	% Agree	% No Opinion	% Disagree
Humanities	2	61	8	31
Hum + NSC	5	45	18	36
Hum + SSC	5	70	6	25
Hum+NSC+SSC	8	60	7	33

There are no differences between the four groups for responses of "agree," "no opinion," and "disagree."

In Table XI attitudes concerning the clarity of the humanities lecture content are represented.

Table XI

Analysis of Statement: The humanities lectures are easy to follow; understandable and clearly presented.

101 Courses Completed	Number of TV Hours	% Agree	% No Opinion	% Disagree
Humanities	2	56	6	39
Hum + NSC	5	72	0	27
Hum + SSC	5	54	19	26
Hum+NSC+SSC	8	55	8	37

All groups are statistically equal over the responses.

Students' perceptions of the attentiveness of classmates during lectures are depicted in Table XII.

Table XII

Analysis of Statement: A large portion (over 25%) of the humanities students are not attentive during the TV lecture.

101 Courses Completed	Number of TV Hours	% Agree	% No Opinion	% Disagree
Humanities	2	67	22	11
Hum + NSC	5	54	18	27
Hum + SSC	5	59	30	10
Hum+NSC+SSC	8	68	21	11

Again there are no differences in group attitudes due to the number of TV hours of instruction or the course-combination of these hours.

Table XIII analyzes student attitudes toward item 19 of the opinionaire.

Table XIII

Analysis of Statement: The humanities course should be reorganized with more compulsory seminars and fewer TV lectures.

101 Courses Completed	Number of TV Hours	% Agree	% No Opinion	% Disagree
Humanities	2	36	14	50
Hum + NSC	5	54	18	27
Hum + SSC	5	25	19	55
Hum+NSC+SSC	8	37	14	47

No differences are found between groups.

General attitudes toward humanities are reported in Table XIV.

Table XIV

Analysis of Statement: In general, my attitude toward my humanities course last semester was very negative.

101 Courses Completed	Number of TV Hours	% Agree	% No Opinion	% Disagree
Humanities	2	22	19	59
Hum + NSC	5	18	9	72
Hum + SSC	5	27	14	59
Hum+NSC+SSC	8	25	11	64

No differences exist among the different groups for the three responses.

Opinionaire Results - Natural Science

In the analysis of attitudes toward natural science, four groups were analyzed: students who had only completed Natural Science 101 (N); students who had had Natural Science 101 and Humanities 101 (N+H); students who had taken Natural Science 101 and Social Science 101 (N+S); and students who had finished Natural Science 101, Social Science 101 and Humanities 101 (N+S+H).

Student attitudes toward course organization in relation to its objectives are analyzed in Table XV.

Table XV

Analysis of Statement: The natural science course is exceptionally well organized; subject matter in agreement with clearly defined course objectives.

101 Courses Completed	Number of TV Hours	% Agree	% No Opinion	% Disagree
NSC	3	61	12	24
NSC + Hum	5	63	27	9
NSC + SSC	6	54	17	29
NSC+SSC+Hum	8	51	14	36

Students who have had N+H+S have significantly more "disagree" responses than students who have had N+H.

Table XVI reflects attitudes concerning the applicability of tests to the course material.

Table XVI

Analysis of Statement: The natural science departmental examinations are fair tests of the course material.

101 Courses Completed	Number of TV Hours	% Agree	% No Opinion	% Disagree
NSC	3	77	6	16
NSC + Hum	5	72	0	27
NSC + SSC	6	72	6	22
NSC+SSC+Hum	8	71	9	18

No differences are found between groups for any of the three responses.

Attitudes toward the assignment of grades are reported in Table XVII.

Table XVII

Analysis of Statement: The grades in natural science are based on very limited evidence of achievement.

101 Courses Completed	Number of TV Hours	% Agree	% No Opinion	% Disagree
NSC	3	47	9	43
NSC + Hum	5	36	9	54
NSC + SSC	6	34	14	52
NSC+SSC+Hum	8	48	18	33

All groups are statistically equal for each category of response.

Reactions toward classroom cheating are shown in Table XVIII.

Table XVIII

Analysis of Statement: A large percentage (over 10%) of the natural science students cheat in some way on examinations.

101 Courses Completed	Number of TV Hours	% Agree	% No Opinion	% Disagree
NSC	3	42	34	23
NSC + Hum	5	27	27	45
NSC + SSC	6	28	43	29
NSC+SSC+Hum	8	29	40	31

No differences are found in the percentages between the groups.

Table XIX reflects attitudes toward Natural Science as an important part of the college curricula.

Table XIX

Analysis of Statement: Natural science is an important area of study for anyone going to college.

101 Courses Completed	Number of TV Hours	% Agree	% No Opinion	% Disagree
NSC	3	58	13	28
NSC + Hum	5	72	0	27
NSC + SSC	6	48	17	34
NSC+SSC+Hum	8	49	11	40

No differences exist between the groups for responses of "agree," "no opinion," and "disagree."

The relationship of assignments to course objectives is reflected by the analysis of student attitudes in Table XX.

Table XX

Analysis of Statement: The natural science assignments are not related well to the course objectives.

101 Courses Completed	Number of TV Hours	% Agree	% No Opinion	% Disagree
NSC	3	16	10	73
NSC + Hum	5	18	0	82
NSC + SSC	6	14	23	63
NSC+SSC+Hum	8	13	14	73

There are no significant differences between groups.

Depicted in Table XXI are student attitudes concerning the opportunity for personal attention in the natural science program.

Table XXI

Analysis of Statement: There is a detrimental lack of opportunity for personal attention in the natural science program.

101 Courses Completed	Number of TV Hours	% Agree	% No Opinion	% Disagree
NSC	3	52	15	32
NSC + Hum	5	54	0	45
NSC + SSC	6	63	11	26
NSC+SSC+Hum	8	59	11	24

All groups are statistically equal over the response categories.

Responses concerning lecture organization are reported in Table XXII.

Table XXII

Analysis of Statement: The natural science lectures are well organized in terms of course objectives, use of pertinent audio-visual materials, etc.

101 Courses Completed	Number of TV Hours	% Agree	% No Opinion	% Disagree
NSC	3	58	12	29
NSC + Hum	5	81	0	18
NSC + SSC	6	71	11	18
NSC+SSC+Hum	8	68	10	22

Equality of groups is found for each response.

Table XXIII represents responses to item 31 of the opinionaire.

Table XXIII

Analysis of Statement: I feel that it is much better to have TV lectures by the best possible natural science professors than to have regular classroom lectures by the more average professors.

101 Courses Completed	Number of TV Hours	% Agree	% No Opinion	% Disagree
NSC	3	56	9	34
NSC + Hum	5	36	0	63
NSC + SSC	6	46	14	40
NSC+SSC+Hum	8	47	7	47

There are no differences among groups.

Student attitudes concerning the clarity of the lecture are reported in Table XXIV.

Table XXIV

Analysis of Statement: The natural science lectures are easy to follow; understandable and clearly presented.

101 Courses Completed	Number of TV Hours	% Agree	% No Opinion	% Disagree
NSC	3	46	4	49
NSC + Hum	5	54	0	45
NSC + SSC	6	34	11	54
NSC+SSC+Hum	8	33	9	58

The groups are found to be equal with respect to answers of "agree," "no opinion," and "disagree."

Table XXV depicts attitudes about student attentiveness during lectures.

Table XXV

Analysis of Statement: A large portion (over 25%) of the natural science students are not attentive during the TV lecture.

101 Courses Completed	Number of TV Hours	% Agree	% No Opinion	% Disagree
NSC	3	52	21	27
NSC + Hum	5	36	18	45
NSC + SSC	6	58	14	29
NSC+SSC+Hum	8	55	19	25

No statistical differences exist between groups over the three categories.

Attitudes toward compulsory seminars and fewer TV lectures are analyzed in Table XXVI.

Table XXVI

Analysis of Statement: The natural science course should be reorganized with compulsory seminars and fewer TV lectures.

101 Courses Completed	Number of TV Hours	% Agree	% No Opinion	% Disagree
NSC	3	46	12	42
NSC + Hum	5	27	18	54
NSC + SSC	6	48	11	40
NSC+SSC+Hum	8	53	15	32

Statistical equality is found between the groups for the different responses.

Reflected in Table XXVII are the students' general attitudes toward their natural science course.

Table XXVII

Analysis of Statement: In general, my attitude toward my natural science course last semester was very negative.

101 Courses Completed	Number of TV Hours	% Agree	% No Opinion	% Disagree
NSC	3	37	12	51
NSC + Hum	5	36	9	54
NSC + SSC	6	43	9	48
NSC+SSC+Hum	8	32	13	56

No differences exist between the groups for the three responses.

Opinionaire Results - Social Science

The perceived agreement between subject matter and course objectives in social science is reported in Table XXVIII.

Table XXVIII

Analysis of Statement: The social science course is exceptionally well organized; subject matter in agreement with clearly defined course objectives.

101 Courses Completed	Number of TV Hours	% Agree	% No Opinion	% Disagree
SSC	3	83	9	8
SSC + Hum	5	72	16	11
SSC + NSC	6	77	6	17
SSC+Hum+NSC	8	79	9	11

The groups are found to be equal for each of the three responses.

Table XXIX depicts student feelings about the fairness of departmental examinations.

Table XXIX

Analysis of Statement: The social science departmental examinations are fair tests of the course material.

101 Courses Completed	Number of TV Hours	% Agree	% No Opinion	% Disagree
SSC	3	63	7	28
SSC + Hum	5	70	10	20
SSC + NSC	6	74	9	17
SSC+Hum+NSC	8	72	4	22

No differences are found between the groups for responses of "agree," "no opinion," and "disagree".

Student feelings concerning the relationship between achievement and final grades is analyzed in Table XXX.

Table XXX

Analysis of Statement: The grades in social science are based on very limited evidence of achievement.

101 Courses Completed	Number of TV Hours	% Agree	% No Opinion	% Disagree
SSC	3	49	16	35
SSC + Hum	5	34	23	43
SSC + NSC	6	37	20	43
SSC+Hum+NSC	8	42	17	41

Equality among all groups is found.

Table XXXI reflects attitudes about the amount of cheating in social science classes.

Table XXXI

Analysis of Statement: A large percentage (over 10%) of the social science students cheat in some way on examinations.

101 Courses Completed	Number of TV Hours	% Agree	% No Opinion	% Disagree
SSC	3	22	43	35
SSC + Hum	5	28	44	27
SSC + NSC	6	25	40	35
SSC+Hum+NSC	8	25	47	28

There are no differences between groups for the different response categories.

The analysis of student attitudes about the importance of social science for the college student appears in Table XXXII.

Table XXXII

Analysis of Statement: Social science is an important area of study for anyone going to college.

101 Courses Completed	Number of TV Hours	% Agree	% No Opinion	% Disagree
SSC	3	82	10	8
SSC + Hum	5	75	8	18
SSC + NSC	6	83	6	11
SSC+Hum+NSC	8	80	12	6

The only group differences found are those in the "disagree" dimension. Students who had completed S+H disagreed significantly more than students who had had S+H+N that social science is important for every college student.

In Table XXXIII is found an analysis of student opinions about class assignments.

Table XXXIII

Analysis of Statement: The social science assignments are not related well to the course objectives.

101 Courses Completed	Number of TV Hours	% Agree	% No Opinion	% Disagree
SSC	3	14	14	71
SSC + Hum	5	7	14	80
SSC + NSC	6	12	12	77
SSC+Hum+NSC	8	10	9	80

Equality of means between groups exists over the possible responses.

A report of the perceived opportunity for personal attention appears in Table XXXIV.

Table XXXIV

Analysis of Statement: There is a detrimental lack of opportunity for personal attention in the social science program.

101 Courses Completed	Number of TV Hours	% Agree	% No Opinion	% Disagree
SSC	3	48	18	33
SSC + Hum	5	60	7	33
SSC + NSC	6	28	11	60
SSC+Hum+NSC	8	50	20	31

In the "agree" dimension, statistical analysis reveals differences between students who have had S+H and students who have completed S+N. The S+H group has significantly more "agrees" concerning the paucity of attention in social science courses. Students who have had eight hours of TV instruction report more agreement with this item than S+N students.

More S+H students express no opinion than members of the S+H+N group.

Differences are found between (1) S+N and S+H, (2) S+N and S+H+N, and (3) S+N and S groups. The S+N group has significantly more "disagree" responses than either the S+H group, the S+H+N group, or the S group.

Attitudes toward the organization of lectures in terms of objectives are reflected in Table XXXV.

Table XXXV

Analysis of Statement: The social science lectures are well organized in terms of course objectives, use of pertinent audio-visual materials, etc.

101 Courses Completed	Number of TV Hours	% Agree	% No Opinion	% Disagree
SSC	3	85	9	6
SSC + Hum	5	83	6	10
SSC + NSC	6	88	6	6
SSC+Hum+NSC	8	81	12	7

For each of the responses the groups are found to be equal.

Item 46 is analyzed in Table XXXVI.

Table XXXVI

Analysis of Statement: I feel that it is much better to have TV lectures by the best possible social science professors than to have regular classroom lectures by the more average professors.

101 Courses Completed	Number of TV Hours	% Agree	% No Opinion	% Disagree
SSC	3	66	7	26
SSC + Hum	5	73	5	23
SSC + NSC	6	63	20	17
SSC+Hum+NSC	8	68	9	23

The S+N group is significantly more noncommittal in the expression of opinions than are the students in the S+H group.

Student attitudes about the ease of comprehension and the clarity of lectures are depicted in Table XXXVII.

Table XXXVII

Analysis of Statement: The social science lectures are easy to follow; understandable and clearly presented.

101 Courses Completed	Number of TV Hours	% Agree	% No Opinion	% Disagree
SSC	3	87	1	11
SSC + Hum	5	78	14	9
SSC + NSC	6	94	0	6
SSC+Hum+NSC	8	75	11	13

The mean of the "agree" responses for the S+N group statistically exceeds that of the S+H+N group. In addition, members of the S+N group have significantly more agreement responses than students in the S+H group.

Concerning the "no opinion" dimension, the following results are significant:

(1) the S+H+N group has more "no opinion" responses than either the S+N group or the S group;

(2) the S+H group has more "no opinion" responses than either the S+N group or the S group;

(3) there are no differences between the S+H and the S+H+N groups.

The amount of perceived inattentiveness of classmates is reported in Table XXXVIII.

Table XXXVIII

Analysis of Statement: A large portion (over 25%) of the social science students are not attentive during the TV lecture.

101 Courses Completed	Number of TV Hours	% Agree	% No Opinion	% Disagree
SSC	3	42	28	31
SSC + Hum	5	43	41	16
SSC + NSC	6	31	26	43
SSC+Hum+NSC	8	34	31	35

The only significant differences found are in the "disagree" dimension. When separately compared with each of the other groups, the S+H group has significantly fewer "disagree" responses.

Table XXXIX reflects the student attitudes toward the advisability of compulsory social science seminars with fewer TV lectures.

Table XXXIX

Analysis of statement: The social science course should be reorganized with compulsory seminars and fewer TV lectures.

101 Courses Completed	Number of TV Hours	% Agree	% No Opinion	% Disagree
SSC	3	23	16	61
SSC + Hum	5	29	16	54
SSC + NSC	6	28	29	42
SSC+Hum+NSC	8	29	19	53

The groups are found to be statistically equal for each of the three responses.

General feelings toward social science are analyzed in Table XL.

Table XL

Analysis of Statement: In general, my attitude toward my social science course last semester was very negative.

101 Courses Completed	Number of TV Hours	% Agree	% No Opinion	% Disagree
SSC	3	14	13	72
SSC + Hum	5	13	11	76
SSC + NSC	6	17	6	77
SSC+Hum+NSC	8	13	8	79

Equality of response means exists between the groups for responses of "agree," "no opinion," and "disagree."

Summary, Discussion and Conclusions

An opinionaire designed to assess student attitudes toward humanities, natural science, and social science was administered in Humanities 102 sections during the first week of the second semester 1963-64. The purpose of the study was to determine if a relationship exists between the number of hours of television instruction a student has completed and his attitudes toward the three departments in the University College. The arc sin transformation statistic and the proportional z test were used to ascertain significant differences.

Significantly more positive or negative attitudes toward courses are found for three out of thirteen statements (23%) designed to investigate attitudes about humanities. In these three items (statements analyzed in Tables IV, V, and IX), only students who have completed eight hours (the maximum) of TV instruction give significantly negative responses. Students who have had Humanities 101 or the combination of H+S are significantly positive in their attitudes toward humanities.

At first glance it appears that the more hours of prior TV instruction that a student has had, the more negative will be his attitudes toward humanities. One finds two groups who have had the same number of hours of TV instruction: students who have completed H+S and students who have finished H+N. However, both of these groups do not show a significantly positive approach to humanities. Only students who have had H+S or H only are significantly positive in their attitudes toward humanities. The one element that is present for significantly negative groups is natural science. The influence of this same course is absent in those groups who are significantly positive. It may be that experience in Natural Science 101 results in negative attitudes toward humanities. There appears to be no clear-cut relationship between the number of hours of prior TV instruction and attitudes toward humanities. It should be noted that the conclusions reported above represent only 23% of the humanities items in the opinionaire where significant differences are found.

No conclusive findings in a positive or negative direction are evidenced in the analysis of student attitudes toward natural science. Thus the number of hours of prior TV instruction is not related to the negative attitude toward natural science cited in Report No. 2.[3]

Significant differences are found (both positive and negative) for statements analyzed in Tables XXXIV, XXXVI, XXXVII, and XXXVIII (31%) regarding social science. Of the seven significantly positive responses, five were attitudes reported by the S+N group. Nothing definitive can be said about the negative attitudes for this group. If there were a pure relationship between attitudes and the prior number of hours of TV instruction, students who had

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[3]John C. Woodward, "Student Attitudes Toward Humanities, Natural Science, and Social Science in University College," Report No. 2, Office for the Study of Instruction, University of Miami, June, 1964.

had S+H would also have reported significantly more positive responses. However, it is possible that such a relationship exists in interaction with the particular TV course(s) which the student has completed.

For responses to the humanities items, the groups which had significantly more "no opinion" responses had all completed five hours of prior TV instruction (H+S and H+N). An analysis of the noncommittal answers to natural science and social science items reveal no relational trend between the number of prior hours of TV instruction and student attitudes.

In summary there is no straightforward relationship between TV hours and attitudes toward courses. However, it is possible that a specific course combination(s) in interaction with the number of hours of completed TV instruction results in differential attitudes toward courses.

Further study is needed to confirm the existence of a relationship between the number of hours of TV instruction the student has completed and his attitudes toward humanities, natural science, and social science.